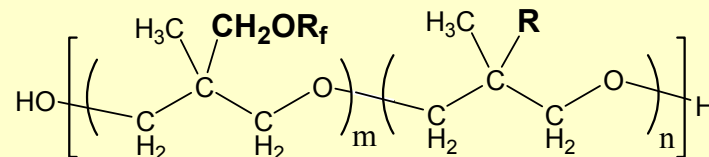


# Functional Polymer Surfaces

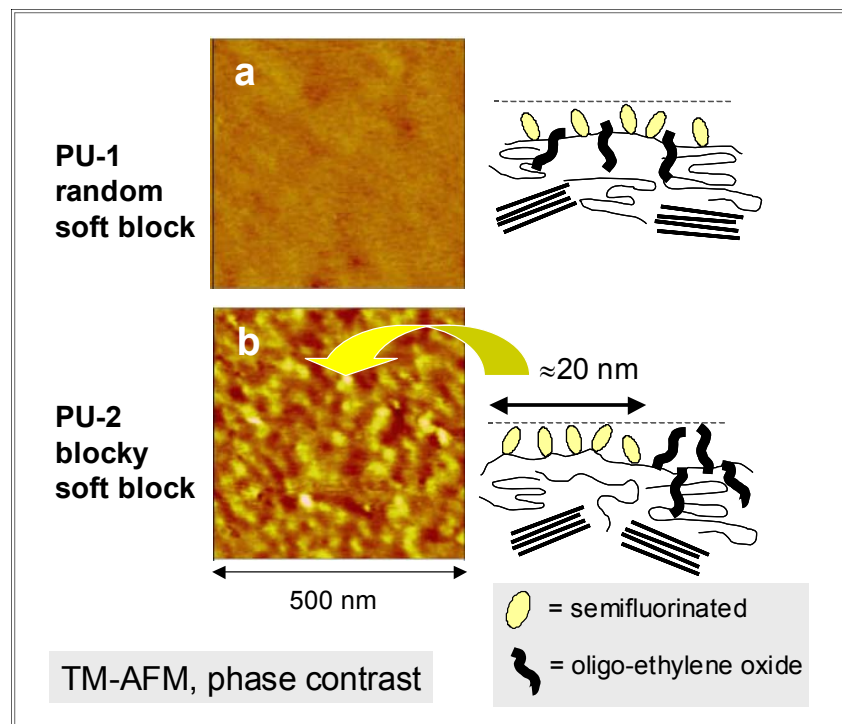
Kenneth J. Wynne, VCU ChemE, DMR-0207560

Novel polyoxetane telechelics with hydrophobic semifluorinated and hydrophilic oligoalkylether pendant groups have been synthesized with *random* and *block* sequences and incorporated into polyurethanes (PU). The effect of soft block sequence distribution on surface morphology [tapping-mode atomic force microscopy (TM-AFM)] and wetting behavior [Wilhelmy plate analysis] has been determined. The results illustrate a new kind of surface nanostructure control that may be important in adaptive processes such as biocompatibility.

*Macromolecules*, submitted



Amphiphilic oxetane telechelic



# Functional Polymer Surfaces

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## Education:

Under this grant, one student has completed the Ph.D. degree: Dr. Janelle Uilk (Bausch & Lomb); one post-doctoral scientist has been trained: Professor Tomoko Fujiwara (Boise State U.); one REU undergraduate student was supported: Mr. Carlos Williams. Currently, two Ph.D. graduate students: Mr. Umit Makal (3rd year), Ms. Pinar Kurt (2nd year), are being trained on this grant.

## Outreach:

Each summer, graduate students from Kyoto University (Professor Chujo's group) and the University of Pisa (Professor Chiellini's group) have come to VCU for training and collaborative work in surface science.

